abcam

ab247245

# Anti-p63 antibody [Y289] - BSA and Azide free

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | pH: 7.2 - 7.4 Constituents: PBS |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Carrier free** | Yes |
| **Clone number** | Y289 |
| **Purification technique** | Affinity purification Protein A |
| **Specificity** | This antibody should detect both isoforms 2,9,10,11 and 12 of p63. |
| **Epitope** | ab247245 reacts with an epitope located in the C terminal region of p63. |
| **Concentration** | 1.022 mg/mL The concentration of this product may be batch-dependent<br>Batch concentration finder → |

## Reactivity data

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |

| | |
|---|---|
| **Dilution info** | - |
| **Notes** | - |

## IP

**Not recommended**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## WB

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## Flow Cyt (Intra)

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

## IHC-P

**Tested**

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | - |
| **Notes** | - |

# Target data

See full target information TP63

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|---|---|
| **Function** | Acts as a sequence specific DNA binding transcriptional activator or repressor. The isoforms contain a varying set of transactivation and auto-regulating transactivation inhibiting domains thus showing an isoform specific activity. Isoform 2 activates RIPK4 transcription. May be required in conjunction with TP73/p73 for initiation of p53/TP53 dependent apoptosis in response to genotoxic insults and the presence of activated oncogenes. Involved in Notch signaling by probably inducing JAG1 and JAG2. Plays a role in the regulation of epithelial morphogenesis. The ratio of DeltaN-type and TA*-type isoforms may govern the maintenance of epithelial stem cell compartments and regulate the initiation of epithelial stratification from the undifferentiated embryonal ectoderm. Required for limb formation from the apical ectodermal ridge. Activates transcription of the p21 promoter. |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Blue Ice |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | +4°C |
| **Storage information** | Do Not Freeze |

## Notes

ab247245 is the carrier-free version of ab32353.

**Species reactivity**

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.

**Patented technology**

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**

This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

**Conjugation ready**

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes,

oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

**Compatibility**
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | The p63 protein also known as TP63 or KET is a transcription factor that plays a role in the regulation of cell cycle and apoptosis. With a molecular mass of approximately 77 kDa it expresses predominantly in epithelial tissues such as those in the skin breast and prostate. The expression pattern of p63 makes it a useful marker in developmental biology and cancer diagnosis. Antibodies like '4A4' specifically recognize p63 in various assays including immunohistochemistry. |
| **Biological function summary** | P63 participates in the control of epithelial cell differentiation and proliferation. It functions as a member of the p53 family which includes p53 and p73. This family forms an important part of the complex regulatory network that maintains genomic stability. Research using methods like p63 staining in immunohistochemistry highlights its critical role in stratified epithelia. The gene encodes several isoforms with different biological activities impacting processes such as cellular senescence and development. |
| **Pathways** | P63 integrates into various signaling pathways that influence cellular growth and adherence. It notably impacts the Notch and Wnt pathways both of which are critical for developmental processes and cancer progression. Through these pathways p63 interacts with proteins like β-catenin and Notch receptors facilitating cross-talk that influences cell fate decisions. Its function relates closely to other transcription factors forming feedback loops that reinforce its regulatory impact. |
| **Associated diseases and disorders** | P63 shows strong associations with ectodermal dysplasia and different types of cancers like squamous cell carcinoma. Mutations and altered expressions of p63 contribute to these pathologies by disrupting normal cell proliferation and differentiation. The protein interacts closely with p73 in cancer suggesting a compensatory role when p63 function is compromised. Understanding these connections can guide the development of targeted therapies and improve diagnostic accuracy. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

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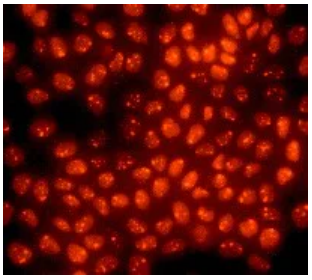
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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## 6 product images

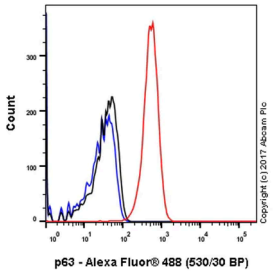


### Immunocytochemistry/ Immunofluorescence - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

P63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-p63 antibody

This data was developed using ab32353, the same antibody clone in a different buffer formulation. Immunocytochemistry/Immunofluorescence analysis of A431 cells labelling p63 with unpurified ab32353 at 1/250 dilution.

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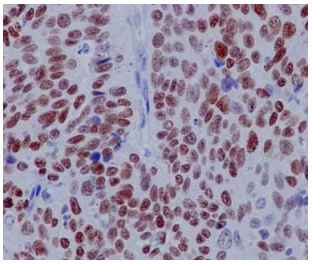



### Flow Cytometry (Intracellular) - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

P63 Flow Cytometry (Intracellular) staining using rabbit Anti-p63 antibody

This data was developed using ab32353, the same antibody clone in a different buffer formulation. Intracellular Flow Cytometry analysis of A431 (human epidermoid carcinoma) cells labeling p63 with purified ab32353at 1/500 dilution (1ug/ml) (red). Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as the isotype control, cells without incubation with primary antibody and secondary antibody (Blue) were used as the unlabeled control.

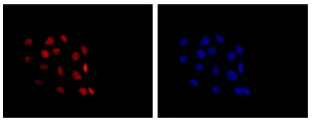
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## Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

P63 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-p63 antibody

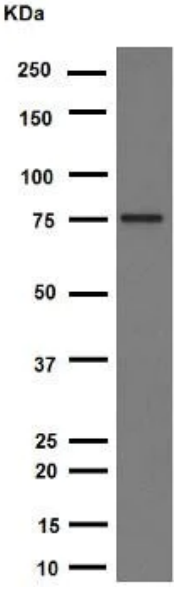
This data was developed using ab32353, the same antibody clone in a different buffer formulation. Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human hepatocellular skin tissue labelling p63 with purified ab32353 at 1/50. Heat mediated antigen retrieval was performed using Tris/EDTA buffer pH 9. A prediluted HRP-polymer conjugated anti-rabbit IgG was used as the secondary antibody. Counterstained with Hematoxylin.



## Immunocytochemistry/ Immunofluorescence - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

P63 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-p63 antibody

This data was developed using ab32353, the same antibody clone in a different buffer formulation. Immunocytochemsitry/Immunofluorescence analysis of A431 cells labelling p63 (red) with purified ab32353 at 1/200. Cells were fixed with 4% paraformaldehyde. An Alexa Fluor® 555-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody. Counterstained with DAPI (blue).




## Western blot - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

P63 Western blot staining of A431 cell lysate using rabbit Anti-p63 antibody

This data was developed using ab32353, the same antibody clone in a different buffer formulation.
**Blocking and dilution buffer:** 5% NFDM/TBST.

All lanes:
Western blot - Anti-p63 antibody [Y289] (ab32353) at 1/4000 dilution

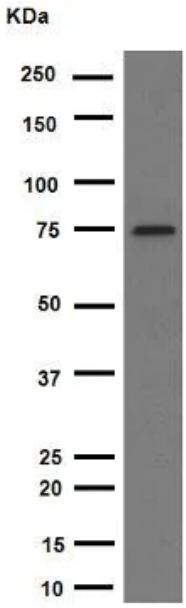
All lanes:
A431 cell lysate at 10 µg

Secondary

All lanes:
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 77 kDa

Observed band size: 73 kDa




# Western blot - Anti-p63 antibody [Y289] - BSA and Azide free (ab247245)

This data was developed using ab32353, the same antibody clone in a different buffer formulation.
**Blocking and dilution buffer:** 5% NFDM/TBST.

All lanes:
Western blot - Anti-p63 antibody [Y289] (ab32353) at 1/10000 dilution

All lanes:
A431 cell lysate at 10 µg

Secondary

All lanes:
Peroxidase-conjugated goat anti-rabbit IgG (H+L) at 1/1000 dilution

Predicted band size: 77 kDa

Observed band size: 73 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.